REMARKS

This Amendment is filed in response to the Office Action mailed Sept. 15, 2009. The Applicant respectfully requests reconsideration. All objections and rejections are respectfully traversed.

Claims 1-40 are pending in the application.

Claims 8 and 17 have been amended.

Claim Objections

At paragraph 5 of the Office Action, claims 8 and 17 were objected to in relation to typographical errors. The Applicant has corrected these typos.

Claim Rejections - 35 U.S.C. §103

At paragraphs 6-7 of the Office Action, claims 1, 2, 4, 6-8, 13-17, 19-22 and 26-40 were rejected under 35 U.S.C. §103(a) over Schwegler et al., "New Information Technology Tools Enable Productivity Improvements," 2000 North American Steel Construction Conference Proceedings, 2000, pages 11-3 to 11-20 (hereinafter "Schwegler") in view of Schwegler, Jr. et al., U.S. Patent No. 7,042,468 (hereinafter "Schwegler '468").

The Applicant's claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

1. A method for managing a construction project comprising:

generating, by one or more central processor units (CPUs) executing an application, a computerized simulation model for the construction project representing project materials in the construction project;

mapping the project materials represented in the computerized simulation model into constructible elements;

displaying the constructible elements as three-dimensional objects in a graphical user interface;

determining at least one work step for each constructible element;

receiving a selection in the graphical user interface of at least one constructible element represented as a three-dimensional object to *create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element*; and

11

>*sequencing a plurality of work packages for release to work
crews*.

Schwegler discusses a 4D modeling tool that "allows design and construction pro-
fessionals to review and change the design and corresponding construction schedule at
several levels of detail and in a variety of computing environments...." *See* Schwegler
page 11-4, 3rd full paragraph. Schwegler comments that "[e]ffective staging and sequenc-
ing of work enables efficient use of resources and minimizes the waste of labor and mate-
rials. Interactive 4D models should respond to these practical needs by displaying not
only the installation of components in the 3D model in their final position, but also by
supporting a realistic evaluation of a proposed construction schedule." *See* Schwegler
page 11-6, 3rd full paragraph.

Schwegler '468 discusses a 4D modeling tool that has "the ability to overlay text
in 2D or 3D on an animated 4D simulation to give the viewer of the 4D model additional
information about the activities that are displayed in 4D simulation." *See* Schwegler '468
col. 2, lines 34-39. First "linkages are created between schedule items and the 3D com-
ponents that those schedule items affected, see FIG. 4." *See* Schwegler '468 col. 4, lines
14-16. Once these linkages are established a time based simulation may be displayed.
"As the simulation steps through time, the 4D model graphically shows the activities in
their scheduled sequence by highlighting the building components that are being worked
on by the activities." *See* Schwegler '468 col. 3, lines 33-39 and col. 4, lines 52-28.

The Applicant respectfully urges that both Schwegler and Schwegler '468 are si-
lent concerning the Applicant's claimed selection to "*create a work package in the com-
puterized simulation model, the work package comprising the at least one constructible
element and the at least one work step for the at least one constructible element*" and
"*sequencing a plurality of work packages for release to work crews*."

The Applicant's technique allows a user to create a special structure, termed a
"work package," which includes at least one constructible element to which project mate-
rials are mapped, and at least one work step for the at least one constructible element.

This, the "work packages" include two disparate types of sub-structures: constructible elements and work steps. A user is able to sequence the work package for release to work crews. Sequencing special structures (i.e. "work packages") that include both con-structible elements and work steps may have significant advantages over techniques that merely allow one to sequence work steps by themselves.

Neither Schwegler, nor Schwegler' 468, suggest creating any special structures in a simulation model that include both a constructible element and a work step, much less sequence such special structures for release to work crews.

Schwegler merely discusses "4D models" that display "not only the installation of components in the 3D model in their final position" but also support "a realistic evalua-tion of a proposed construction schedule." *See* Schwegler page 11-6, 3rd full paragraph. Schwegler does not create any special structures in his 4D models that include both a constructible element and a work step. As such, Schwegler may not fairly be interpreted as teaching sequencing such special structures. The Office Action points to page 11-6, section 1.3 of Schwegler, but such passage merely describes the it is desirable for con-struction mangers to have the right type of information and that it is desirable to sequence construction projects efficiently. Specifically, Schwegler first states that "all project and construction managers should have project information available at the right level of de-tail and scope." *See* Schwegler page 11-6, section 1.3, 2nd paragraph. Schewgler then states that "[e]ffective staging and sequencing of work enable efficient use of resources and minimizes the waste of labor and materials." No mention is made of sequencing any special structures that include both constructible elements and work steps.

The deficiencies of Schwegler are not remedied by combination with Schwegler' 468. Schwegler' 468 does not create any special structures in a simulation model that include both a constructible element and a work step. While Schwegler' 468 states that "linkages are created between schedule items and the 3D components that those schedule items affected" (*see* col. 4, lines 14-16, referring to Fig. 4), merely linking such items does not create a structure from them. Schwegler' 468 merely associates them so that they may be displayed together. Schwegler' 468 certainly does not sequence any special

structures that include both a constructible element and a work step. For example, Schwegler' 468 **does not** suggest that a plurality of linked schedule items and the 3D components, as shown in Fig. 4, should be ordered into some type of sequence.

Accordingly, the Applicant respectfully urges that the combination of Schwegler and Schwegler' 468 is legally insufficient to make obvious the present claims under 35 U.S.C. §103(a) because neither reference teaches of suggests the Applicant's claimed novel "*create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element*" and "*sequencing a plurality of work packages for release to work crews*."

At paragraphs 8 of the Office Action, claims 3, 5, 9-12, 19 and 23-25 were rejected under 35 U.S.C. §103(a) over Schwegler and Schwegler '468, in further view of Kroeger, U.S. Publication No. 2002/0165723 (hereinafter "Kroeger").

The Applicant notes that claims 3, 5, 9-12, 19 and 23-25 are dependent claims that depend from independent claims believed to be allowable for at least the reasons discussed above. Claims 3, 5, 9-12, 19 and 23-25 are believed to be allowable due to their dependency, as well as for other separate reasons.

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

_____/James A. Blanchette/_____
James A. Blanchette
Reg. No. 51,477
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500